

Algebra...A review!

Simplifying...

What's a like term? _____

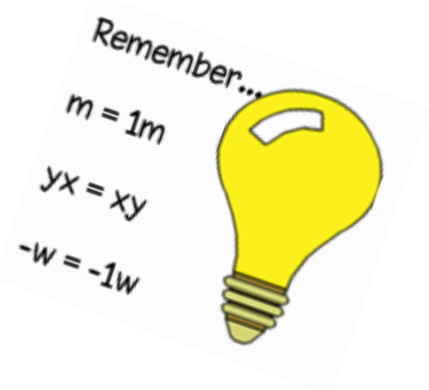
Write 3 different like terms for the term $2x^2y$: _____

Circle the terms in the following expression:

$$5ws + 4w - 6wy^2 + y$$



- Only LIKE TERMS can be added or subtracted.
- When MULTIPLYING, multiply the numbers first, then the pronumerals.
- Follow order of operations.
- Rewrite division in fraction form



Simplify the following:

a) $5x^2 + 5x - x^2$

b) $5ab - 4ba$

c) $4x^3 + x + 6x^2 - 3x - x^2$

d) $-6ab \times -5b$

e) $(-3xy)^2$

f) $-12xy \div 4$

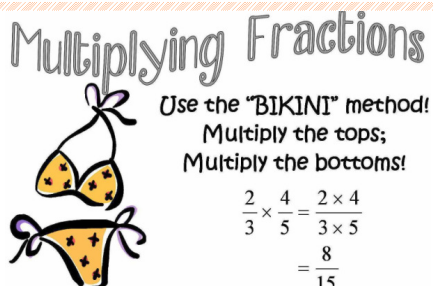
Algebraic Fractions...

APPLY THE FRACTION RULES YOU LEARNT IN YEAR 7!

Addition & Subtraction

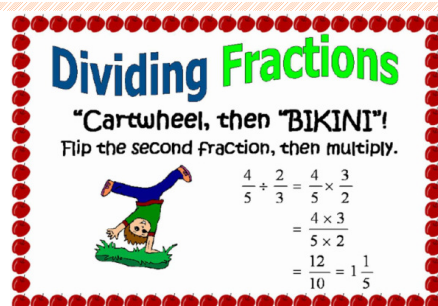


Multiplication



Also remember to check diagonals to cancel any common factors.

Division



Examples

a) $\frac{5x}{6} + \frac{3x}{4} =$

b) $\frac{x+2}{3} - \frac{x}{4} =$

c) $\frac{3m}{5} \times \frac{7a}{4} =$

d) $\frac{11ab}{7xy} + \frac{14x}{5b} =$

e) $\frac{2x}{5} \div \frac{3}{4} =$

f) $\frac{5m^2}{7} \div \frac{m}{2} =$

L₁ | **N₁** | **D₁** | **E₁** | **X₁**

L₂ | **A₁** | **W₂** | **S₁**

$$x^m \times x^n = x^{m+n}$$

$$x^m \div x^n = \frac{x^m}{x^n} = x^{m-n}$$

$$(x^m)^n = x^{mn}$$

$$x^0 = 1$$

$$x^{-m} = \frac{1}{x^m}$$

$$x^{\frac{m}{n}} = \sqrt[n]{x^m}$$

$$(\sqrt{x})^2 = x$$

Examples:

a) $9a^4 \times 8ab^3 =$

b) $(3x^3)^4 =$

c) $32m^6n^2 \div 4m^2n^3 =$

d) $\left(\frac{2a}{3}\right)^{-2} =$

e) $16x^4 \div 12x^6 =$

f) Remove the fraction format

$$\frac{8x^2}{y^3} =$$

g) Rewrite in index form $7(x-4)^{-1} =$

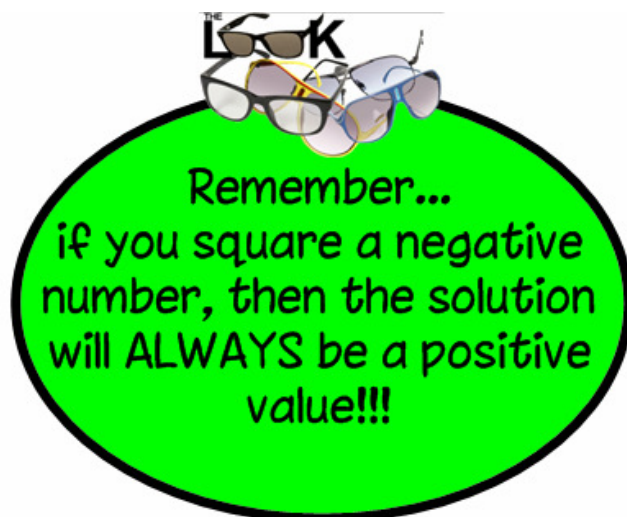
h) $(-2w^2)^2 =$

i) $-(2w^2)^2 =$

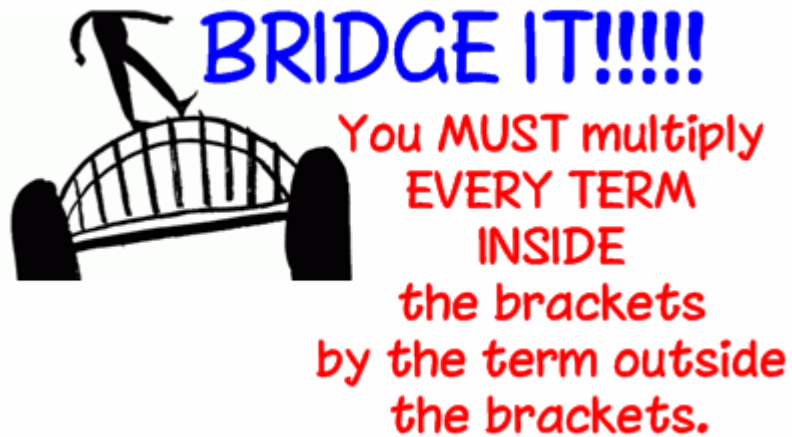
j) $a^3bc^2 \div 2ac^3 =$

k) $8m^2n \div 32mn =$

l) $(-x)^3 =$



Removing grouping symbols...



Expand & simplify the following:

a) $2(x + 3) =$

b) $5a(a - 7) =$

c) $2p(3p + 1) - 5p =$

d) $2(6a - 7) + (8a - 3) =$

e) $(9m - 8) - (2m - 5) =$

f) $9 - (a - b) - (a + b) =$

g) $7(a - 3) - 2(3a - 1) =$